

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* CECILE DROGOU, THIERRY PASQUIER,  
LINE SUNDE, and AURELIE FONTANEL

---

Appeal 2007-0885  
Application 10/053,497  
Technology Center 1700

---

Decided: June 27, 2007

---

Before CHUNG K. PAK, PETER F. KRATZ, and LINDA M. GAUDETTE,  
*Administrative Patent Judges.*

GAUDETTE, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 1-8 and 21-32, the only claims pending in this application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

Independent claims 1 and 21 are illustrative of the invention:

1. An improved process for bonding difficult-to-bond substrates comprising bonding a first substrate to a second substrate with a

thermoplastic hot melt adhesive composition, said composition comprising an ethylene n-butyl acrylate copolymer and a modified terpene tackifier.

21. An improved process for bonding difficult-to-bond substrates comprising bonding a first substrate to a second substrate with a hot melt adhesive composition, said composition consisting essentially of 30 to 45 % by weight ethylene n-butyl acrylate copolymer, 30 to 55 % by weight tackifier, and 20 to 40 % by weight wax, wherein the tackifier comprises at least one modified terpene tackifier.

The Examiner relies on the following prior art references to show unpatentability:

Howells	US 4,566,981	Jan. 28, 1986
Dupont	US 5,325,781	Jul. 5, 1994
Milks	US 5,401,791	Mar. 28, 1995
Gruber	US 5,475,080	Dec. 12, 1995
Yang	US 6,207,248 B1	Mar. 27, 2001

The Examiner made the following rejections:

1. Claims 1, 3, 21, and 30-32 under 35 U.S.C. § 103(a) as unpatentable over Yang.
2. Claims 2 and 22 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Milks.
3. Claims 4, 5, 23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Dupont.
4. Claims 6-8 and 25-27 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Howells.
5. Claims 28 and 29 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Gruber.

### ISSUE

The Examiner contends that it would have been obvious to select ethylene n-butyl acrylate copolymer and a modified terpene tackifier for use as an adhesive in binding substrates based on Yang's disclosure of using these components in a hot melt adhesive. Appellants contend that Yang's disclosure is limited to reactive hot melt polyurethane adhesives, which are not encompassed by the present claims. The issue for us to decide is: Have Appellants demonstrated that the claim language excludes the reactive hot melt adhesive components used in Yang's composition?

For the reasons discussed below, we answer this question in the negative.

### RELEVANT FINDINGS OF FACT

- 1) Yang discloses an adhesive composition for providing better adhesion to difficult-to-bond substrates. (Col. 5, ll. 56-57).
- 2) Yang teaches that "[e]thylene-vinyl monomer thermoplastic polymers are preferably used in the adhesives." (Col. 8, ll. 42-43).
- 3) Yang discloses that "[e]thylene methyl acrylate copolymers, ethylene n-butyl acrylate copolymers and ethylene ethyl acrylate copolymers are also useful to the present invention." (Col. 8, l. 65-col. 9, l. 1).
- 4) In a preferred embodiment, a hydrocarbon tackifying resin, such as a styrenated terpene resin, is included in Yang's adhesive composition. (Col. 8, ll. 26-27 and 33-34).

## ANALYSIS AND CONCLUSIONS

The Examiner found that Yang discloses a hot-melt adhesive composition for bonding difficult-to-bond substrates. (Answer 3). The Examiner notes that ethylene n-butyl acrylate copolymer and modified terpene are among the various components which may be used in Yang's composition. (Answer 3-4). The Examiner concluded that it would have been obvious for one of ordinary skill in the art to employ an adhesive comprising ethylene n-butyl acrylate copolymer and a tackifier comprising modified terpene based on Yang's specific teaching that these are useful components in bonding difficult-to-bond substrates. (Answer 4).

Appellants assert that the claimed process utilizes a thermoplastic hot melt adhesive composition. Appellants argue that the claims are patentable over Yang because Yang utilizes reactive hot melt polyurethane adhesives, which are not encompassed by the present claims. (Br. 4). According to Appellants, thermoplastic hot melt adhesives can be repeatedly heated from a solid state and flowed to a liquid form. In contrast, reactive hot melt adhesives contain isocyanate terminated prepolymers which react with surface or ambient moisture in order to chain extend forming a new polyurethane polymer, thereby going through an irreversible chemical reaction once dispensed in the presence of ambient moisture. Appellants argue that while Yang may use additives such as tackifying resins and thermoplastic polymers, Yang's adhesives are still reactive polyurethane hot melt adhesives containing a polyfunctional isocyanate component and a polymer polyol component.

During prosecution claims are given their broadest reasonable construction "in light of the specification as it would be interpreted by one of

ordinary skill in the art.” *See In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004). *See also, Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005)(citing, *inter alia*, *In re Nelson*, 280 F.2d 172, 181, 126 USPQ 242, 251 (CCPA 1960) (“The descriptions in patents are not addressed to the public generally, to lawyers or to judges, but, as section 112 says, to those skilled in the art to which the invention pertains or with which it is most nearly connected.”)). As pointed out by the Examiner, claim 1 uses the term “comprising” and, therefore, does not appear to exclude reactive hot melt adhesive components. (Answer 7). *See In re Crish*, 393 F.3d 1253, 1257, 73 USPQ2d 1364, 1367 (Fed. Cir. 2004) (quoting *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir.1997) (“‘[c]omprising’ is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim”). Consequently, the burden is on Appellants to identify some teaching in the Specification or provide evidence which establishes that one of ordinary skill in the art would understand the term “thermoplastic hot melt adhesive” as excluding other components. The unsupported arguments of counsel are simply not sufficient to meet this burden. While claims 21 and 30 use the language “consisting essentially of” rather than “comprising”, as properly pointed out by the Examiner, the burden is likewise on Appellants to show that the introduction of additional components would materially change the characteristics of the claimed invention. Appellants have not met this burden.

Appellants' traversal of all five grounds of rejection is based on their contention that the teaching of Yang, alone or in combination with the secondary references is limited to reactive hot melt polyurethane adhesives, which are not encompassed by the present claims. Having determined that Appellants' position is not supported by the evidence of record, we affirm as to all five grounds of rejection.

ORDER

The rejection of claims 1, 3, 21, and 30-32 under 35 U.S.C. § 103(a) as unpatentable over Yang is affirmed.

The rejection of claims 2 and 22 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Milks is affirmed.

The rejection of claims 4, 5, 23, and 24 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Dupont is affirmed.

The rejection of claims 6-8 and 25-27 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Howells is affirmed.

The rejection of claims 28 and 29 under 35 U.S.C. § 103(a) as unpatentable over Yang in view of Gruber is affirmed.

Appeal 2007-0885  
Application 10/053,497

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv).

AFFIRMED

sld

CYNTHIA L. FOULKE  
NATIONAL STARCH AND CHEMICAL COMPANY  
10 FINDERNE AVENUE  
BRIDGEWATER, NJ 08807-0500